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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,174	04/16/2004	Scott C. Hornbostel	PM98.061/3	9881

7590 02/12/2007  
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Houston, TX 77252-2189

EXAMINER
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HUGHES, SCOTT A

ART UNIT	PAPER NUMBER
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3663

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/826,174	HORNBOSTEL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Scott A. Hughes	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☒ Claim(s) 21-40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/16/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/22/2007 has been entered.

### ***Response to Arguments***

Applicant's arguments, see Amendments and Arguments/Remarks, filed 1/22/2007, with respect to the 35 USC 101 Rejections of claims 1-10 and 21-40 have been fully considered and are persuasive. The Rejections of these claims under 35 USC 101 has been withdrawn.

Applicant's arguments, see Amendments and Arguments/Remarks, filed 1/22/2007, with respect to the 35 USC 112 Rejections of claims 21-27 and 35-37 have been fully considered and are persuasive. The Rejections of these claims under 35 USC 112 has been withdrawn.

Applicant's arguments, see Amendments and Arguments/Remarks, filed 1/22/2007, with respect to the 35 USC 101 rejections of claims 11-20 have been fully considered but are not persuasive. Applicant argues that the electrical signals of claims 11-20 are comprised of matter (electrons), and are therefore a product and fall under

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the statutory class of "manufacture." These arguments are not persuasive for the reasons submitted in the 35 USC 101 rejection in the prior Office Action and the cited sections of the 101 Guidelines. Applicant's arguments that O'Reilly decision cited in the 101 Guidelines do not apply to this case are not persuasive. Applicant argues that the claims at issue in that case were rejected because they were overbroad, and that the claim in the application are narrow and are directed to a practical application of a principle. These arguments are not persuasive as the claims are directed to electrical signals, which are a form of energy, and do not fall into one of the four statutory classes of patentable subject matter as stated in the 35 USC 101 Rejection and cited portions of the 101 Guidelines of the prior action.

### ***Claim Objections***

Claims 21-40 are objected to because of the following informalities:

The claims do not contain the proper markings to show amendments to claims in the Reissue application in accordance with 37 CFR 1.173 (especially 1.173 (d)). Any amendment to the claim, relative to the original patent, must be shown by the proper markings as discussed in 37 CFR 1.173.

An amendment paper must include the entire text of each claim being changed by such amendment paper and of each claim being added by such amendment paper. For any claim changed by the amendment paper, a parenthetical expression "amended," "twice amended," etc., should follow the claim number. Each changed patent claim and each added claim must include markings pursuant to paragraph (d) of this section, except that a patent claim or added claim should be canceled by a statement canceling the claim without presentation of the text of the claim.

Any changes relative to the patent being reissued which are made to the specification, including the claims, upon filing, or by an amendment paper in the reissue application, must include the following markings:

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- (1) The matter to be omitted by reissue must be enclosed in brackets; and
- (2) The matter to be added by reissue must be underlined, except for amendments submitted on compact discs (§§ 1.96 and 1.821(c)). Matter added by reissue on compact discs must be preceded with "<U>" and end with "</U>" to properly identify the material being added.

**All amendments must be made relative to the patent specification, including the claims,** and drawings, which are in effect as of the date of filing of the reissue application.

Applicant has submitted original claim pages and amended claim pages. This does not meet the requirements of 37 CFR 1.173. Applicant is required to show ALL amendments to the claims relative to the patent claims of the original patent using proper markings of 37 CFR 1.173 (especially as discussed in section (d)). Therefore, the amended set of claims should show all changes **relative to the patent**, and NOT relative to the set of claims submitted in the previous response (i.e. all of the text of the newly added claims, including recent amendments and the original text of the new claims, should still be underlined since it is an amendment relative to the originally patented claims).

Whenever there is an amendment to the claims pursuant to paragraph (b) of this section, there must also be supplied, on pages separate from the pages containing the changes, the status (i.e., pending or canceled), as of the date of the amendment, of all patent claims and of all added claims, and an explanation of the support in the disclosure of the patent for the changes made to the claims (37 CFR 1.173 (c)).

Applicant should refer to 37 CFR 1.173 sections (a) to (g) for guidance to making amendments to the claims.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to electrical signals, and therefore the claimed invention does not fall within at least one of the four categories of patent eligible subject matter recited in 35 U.S.C. 101 (process, machine, manufacture, or composition of matter). The signal itself is made up by the process described in the claims for its creation. The applicant is not claiming the process of creating the signal, but is rather claiming the signal itself, which does not fall into one of the categories of eligible subject matter (See Response to Arguments section of Final Office Action dated 12/21/2006).

***Allowable Subject Matter***

Claims 1-10 are allowed.

Claims 21-40 would be allowable if rewritten to overcome the objections to the claims stated above.

The following is a statement of reasons for the indication of allowable subject matter:

The closest prior art of record did not show the method steps claimed involving electroseismic prospecting. The closest prior art did not disclose selecting and generating a source waveform as an electrical and a reference waveform, imparting the electrical signal into the subterranean formation, recording seismic signals resulting from a conversion of the electrical signal to a seismic signal, or correlating the detected seismic signals with the reference waveform as claimed in the independent claims to produce an image of the subterranean formation.

### ***Conclusion***

The cited prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A. Hughes whose telephone number is 571-272-6983. The examiner can normally be reached on M-F 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on (571) 272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SAH

Mark A. Hellner

Primary Examiner

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